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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/570,916 | 03/02/2006 | Biao He | 02307O-138910US | 8961 |

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| EXAMINER |
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DAVIS, MINH TAM B

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| ART UNIT | PAPER NUMBER |
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1642

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08/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/570,916

Applicant(s)

HE ET AL.

Examiner

MINH-TAM DAVIS

Art Unit

1642

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-25 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claim(s) 1-3, 12, drawn to a method for detecting lung cancer, by detecting the level of the nucleic acid SEQ ID NO:1.

Groups 2-5, claim(s) 1-3, 12, drawn to a method for detecting breast cancer, mesothelioma, colon cancer or sarcoma, by detecting the level of the nucleic acid SEQ ID NO:1. A method for detecting each cancer constitutes a single, distinct invention.

Groups 6-10, claims 4-6, 12, drawn to a method for detecting lung cancer, breast cancer, mesothelioma, colon cancer or sarcoma, by detecting the level of the polypeptide SEQ ID NO:2. A method for detecting each cancer constitutes a single, distinct invention.

Groups 11-15, claims 7-11, 13, drawn to a method for detecting lung cancer, breast cancer, mesothelioma, colon cancer or sarcoma, by detecting the methylation of the promoter SEQ ID NO: 3. A method for detecting each cancer constitutes a single, distinct invention.

Group 16, claims 14-16, drawn to a method for screening an agent that increases SOCS-3 activity, using SOCS-3 promoter.

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Group 17, claims 14-15, 17, drawn to a method for screening an agent that increases SOCS-3 activity, using SOCS-3 mRNA transcript.

Group 18, claims 14-15, 18, drawn to a method for screening an agent that increases SOCS-3 activity, using SOCS-3 polypeptide.

Groups 19-23, claims 19-24, drawn to a method for treating lung cancer, breast cancer, mesothelioma, colon cancer or sarcoma, using SOCS-3 nucleic acid SEQ ID NO:1. A method for treating each cancer constitutes a single, distinct invention.

Groups 24-28, claims 19-21, 23, drawn to a method for treating lung cancer, breast cancer, mesothelioma, colon cancer or sarcoma, using SEQ ID NO:2. A method for treating each cancer constitutes a single, distinct invention.

Groups 29-33, claims 19-21, 24, drawn to a method for treating lung cancer, breast cancer, mesothelioma, colon cancer or sarcoma, using a demethylation agent. A method for treating each cancer constitutes a single, distinct invention.

Group 34, claim 25, drawn to a kit comprising a primers from SEQ ID NO:3.

The inventions are distinct, each from the other because of the following reasons:

An international stage application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept. When claims to different categories are present in the application, the claims will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories: (1) A product and a process specially adapted for the manufacture of said product; or (2) A product and a process of use of said product; or (3) A product, a process specially adapted for the manufacture

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of the said product, and a use of the said product; or (4) A process and an apparatus or means specifically designed for carrying out the said process; or (5) A product, a process specially adapted for the manufacture of the said product, and an apparatus or means specifically designed for carrying out the said process. If multiple products, processes of manufacture or uses are claimed, the first invention of the category first mentioned in the claims of the application will be considered as the main invention in the claims, see PCT article 17(3) (a) and 1.476 (c), 37 C.F.R. 1.475(b) and (d). Group I will be the main invention. After that, all other products and methods will be broken out as separate groups (see 37 CFR 1.475(d).)

Group I, claims 1-3, 12, forms a single general inventive concept.

Groups 2-5, 17, 19-23, are additional use of the nucleic acid SEQ ID NO:1.

Groups 6-16, 18, 24-33 do not share the same technical feature of group I, because the methods of groups 6-16, 18, 24-33 do not use the nucleic acid SEQ ID NO:1 of group I.

Group 34 does not share the same technical feature of group I, because the composition of group 34 does not share a common structure with the nucleic acid SEQ ID NO:1 of group I.

Accordingly, Groups 1-34 are not so linked by the same or a corresponding special technical feature as to form a single general inventive concept.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH-TAM DAVIS whose telephone number is 571-272-0830. The examiner can normally be reached on 9:00 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, SHANON FOLEY can be reached on 571-272-0898. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MINH TAM DAVIS
July 31, 2007

/Larry R. Helms/

Supervisory Patent Examiner